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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,803	05/22/2001	Bernhard Kern	1625	1185

7590 10/07/2004  
STRIKER, STRIKER & STENBY  
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Huntington, NY 11743

EXAMINER

LIN, KUANG Y

ART UNIT PAPER NUMBER

1725

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/862,803

Applicant(s)

KERN, BERNHARD

Examiner

Kuang Y. Lin

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/25/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Applicant is advised that claim 8 had not been provided with a status identifier.

Correction is required

2. The amendment, filed on August 1, 2003, to page 9, lines 5-20 of the specification is objected to in that the reference numeral for the heating means shall be "2" rather than "20". Also, in the amendment to page 10, lines 1-10 of the specification, it is not clear what "bubble storage" is.

3. Claims 1-7 are again rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 6, the meaning of "performing a production process continuously in a closed loop" is not understandable; line 11, "of" shall be deleted to render the meaning definite; lines 13-14, what "losses of a quantity of the supplied liquid metal in said casting retort" are referred to? Line 16, what "tool side" is referred to? If "tool" is referred as "mold", then the use of "tool" is confusion since "casting mold" had been mentioned in line 5 of the claim. Also, it is not clear how the molten metal can flow from a tool side to a lower region of a valve seat when it is in solidification condition. In claims 2 and 3, it is not clear how the additional solid light metal is supplied and where the antecedent basis in the specification for the claimed feature is. In claim 5, it is not clear how the metal can be solidified by simply moving the tool device away; also, what tool device is referred to? In claim 7, there is a lack of antecedent basis in the specification for the claimed feature.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over DE-44 31 865 and further in view of either Jorn et al, Blum et al, Muller or JP 63-268,559 for the same reasons as set forth in the last office action. Namely, DE '865 substantially shows the invention as claimed except that it does not show to provide heating means at the lower end of the molten metal dosing chamber. However, each of the secondary references shows to provide heating means at the lower end of the molten metal dosing chamber such that to ensure free flow of the molten metal from the dosing chamber into the casting mold. It would have been obvious to provide the heating means of the secondary references in the casting apparatus of DE '865 such that to facilitate the molten metal dispensing process.

6. Applicant's arguments filed September 15, 2004 have been fully considered but they are not persuasive.

a. In page 6, 2<sup>nd</sup> paragraph of the remarks, applicant stated that solidification of the cast material is performed not by a simple withdrawal of a casting tool. In 3<sup>rd</sup> paragraph, applicant further stated that that the solidification process is performed by withdrawal of the heat energy through the base support 5 and the automatic withdrawal of the casting mold 19. However, the heat energy is

withdrawn from the dosing chamber through base support to outside of the dosing chamber. Thus, the solidification of molten metal inside the mold can not achieve by withdrawal of the heat energy through the base support.

b. In page 6, last paragraph of the remarks applicant stated that in Braun the periodic course of the casting process is possible only with interruption after each individual casting process. However, the scope of the claim does not exclude that feature. Further, it is noted from the drawing of Braun that the molten metal continuously flows from contain 30, and thus can supply multiple quantity of the metal quantity of the corresponding casting part, to dosing chamber 36 during casting process. Thus, there is no different between Braun and instant application in this feature.

c. With respect to the argument as set forth in page 7, first complete paragraph of the remarks, the scope of the claim does not exclude that feature.

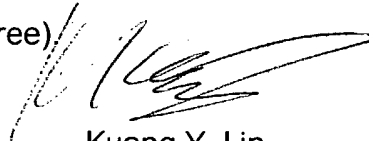
d. With respect to the argument as set forth in page 7, 2<sup>nd</sup> complete paragraph of the remarks US patent 3,663,730 to Gates shows (see col. 4, line 1+) that feature to be conventional.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas X Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)



Kuang Y. Lin  
Primary Examiner  
Art Unit 1725

10-4-04